

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. **Listing of Claims**

Claims 1-8. (Canceled)

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Claim 9. (Currently amended) A method for producing carotenoids comprising introducing ~~the a~~ DNA molecule described in any one of claims 6, 7, and 8 containing a nucleotide sequence that encodes a polypeptide having an IPP isomerase activity into a carotenoid[[s]]-producing microorganism, culturing said transformed microorganism and obtaining carotenoids in the culture broth and cells.

Claims 10-11 (Canceled)

Claim 12. (New) The method for producing carotenoids according to claim 9, wherein the DNA molecule encodes a polypeptide having the amino acid sequence set for in SEQ ID NO: 1, 2 or 3.
